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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,391	03/24/2004	Takeyoshi Kano	Q80448	3325
23373	7590	03/01/2006	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			MOORE, MARGARET G	
			ART UNIT	PAPER NUMBER
			1712	

DATE MAILED: 03/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/807,391

Applicant(s)

KANO, TAKEYOSHI

Examiner

Margaret G. Moore

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 to 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 to 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

Art Unit: 1712

1. Claims 1 to 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "having a repeating unit represented by Formula (1) below" is confusing and seemingly inappropriate since Formula (1) does not represent a repeating unit but a complete polymer structure. Please clarify.

In claim 8, the term "using" is insufficient to clearly indicate the process or method necessary to make the claimed film. It is unclear what is embraced by the term "using".

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 to 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamasaki et al.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Yamasaki et al. teach a polymer as shown on column 2, line 40. The definition of  $L^1$ ,  $L^2$ ,  $Y^1$  and  $Y^2$  found on column 2, lines 16 and on, meet the definitions of  $L^1$ ,  $L^2$ ,  $Y^1$  and  $Y^2$  in the instant claims. Note too that the terminal group in the polymer shown in

Art Unit: 1712

Yamasaki et al. meets the claimed terminal group, including the preferred limitation found in claim 2. See also the various polymers shown on columns 7 through 9.

The bottom of column 14 through column 15 teaches crosslinking compounds that meet the requirements of claims 3 to 5. This composition forms a film by means of hydrolysis and condensation. In this manner claims 6 to 12 are met by Yamasaki et al.

4. Claims 1 to 12 are rejected under 35 U.S.C. 102(a) as being anticipated by JP 2002-293824 (as interpreted by the English language equivalent, Yamasaki et al).

The teachings in Yamasaki et al., as they apply to the instant claims, are noted above. See line 31 on the front page of 2002-293824 as it shows that this corresponds to the foreign priority application in paragraph 30 on the front page of Yamasaki et al.

In view of the summary of the teachings in Yamasaki et al., it is clear that the teachings in JP 2002-293824 anticipate the instant claims. Also note the polymers shown on columns 8 to 12, as they meet the claimed polymer in claim 1.

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 1712

6. Claims 1, 2, 6, 8 and 9 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S. Patent No. 7,001,673. Although the conflicting claims are not identical, they are not patentably distinct from each other because the polymer in claim 1 of '673 falls within the breadth of instant claim 1. See for instance that the  $Y^1$  and  $Y^2$  groups in '673 are embraced by the  $Y^1$  and  $Y^2$  groups in instant claim 1. Also the polymer in claim 1 of '673 has the same terminal group as that found in instant claim 2. The hydrophilic layer in claim 2 of '673 meets claim 8, while the skilled artisan would know that such a layer is formed by the hydrolysis and/or condensation of the polymer in claim 1 of '673. This renders obvious instant claim 6.

7. Claims 1, 2, 6, 8 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Brown.

Brown teaches a polymer having, at one end, a silicon ester moiety. Please note that the instant claim requires "at least one" of P and Q to be a silane coupling agent. Brown meets the claimed polymer when only one of P and Q is a silane coupling agent. See the terminal units on column 3, lines 57 and on, which meet the formula for P and Q as well as the preferred  $L^3$  group in claim 2. The organic polymer has pendant functional groups that meet the definitions of  $Y^1$  and  $Y^2$ . See column 4, lines 26 and on.

Particular attention is drawn to Example 1 which makes an alcohol and aldehyde functional polymer meeting claims 1 and 2.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3 to 5, 7 and 10 to 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of Berger et al.

Art Unit: 1712

Brown does not teach the presence of a silane meeting formula (2) or (3) in the polymer composition therein. Column 1 in Brown refers to Berger et al. (4,061,503) as teaching silane coupling agents that have the same utility as the coupling agents in Brown.


Column 5, line 50 to 60, and column 6, lines 50 to 60, in Berger et al. teach various coupling agents meeting formula (3) in claim 3 (note that claim 4 does not require that silanes of Formula (2) be present).

Pleas note that it is prima facie obvious to combine two compositions, each of which is taught by prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose. In re Kerkhoven 205 USPQ 1069. The idea for combining said compositions flows logically from their having been individually taught in the prior art.

With this in mind, the skilled artisan would have been motivated to add known coupling agents such as those shown in Berger et al. to the coupling agent in Brown. This renders obvious the instant claims.

10. Dowbenko et al., Nambu et al., Chen et al. and Inoue et al. are cited as being of general interest. None of these references are as close, or closer, to the instant claims as those cited supra.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret G. Moore whose telephone number is 571-272-1090. The examiner can normally be reached on Monday to Wednesday and Friday, 10am to 4pm.

  
Margaret G. Moore  
Primary Examiner  
Art Unit 1712

mgm  
2/26/06